

CLAIMS

What is claimed is:

1. A method for communicating to a component of a system controlled by a controller comprising:

packaging a communication sequence into a script by a method

comprising:

5 providing said communication sequence that is a specific set of actions and action data;

 for each of said actions, creating an action header comprising an action code and zero or more component specific commands, and creating an action payload comprising zero or more of said

10 action data;

transmitting said script to said controller; and

communicating to said component of said system by running said script by said controller by a method comprising:

 providing said script to said controller; and

15 for each of said action headers, executing a command corresponding to said action code, transmitting said zero or more component specific commands to said component, and transmitting said zero or more of said action data from said action payload to said component.

2. The method of claim 1 wherein said packaging of said communication is performed by a first computer system that is separate from said system controlled by said controller.

3. The method of claim 1 wherein:

said method of packing said communication sequence further comprises:

 creating a header for said script, said header comprising a CRC; and

5 said method of communicating to said component further comprises:

 reading said header of said script;

 computing a computed CRC of said script;

comparing said computed CRC to said CRC contained within
said header of said script.

4. The method of claim 1 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising an
identifier describing the specific component for which said script is
intended; and

said method of communicating to said component of said system by
running said script by said controller further comprises:

determining a descriptor of said component;

comparing said descriptor of said component to said identifier
contained within said header of said script.

5. The method of claim 1 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising a
compatibility list comprising one or more applicable revisions of
firmware on said specific component for which said script is
applicable; and

said method of communicating to said component of said system by
running said script by said controller further comprises:

determining a current firmware revision of said component;

comparing said current firmware revision to said compatibility
list contained within said header of said script.

6. The method of claim 1 wherein said component is a hard disk drive.

7. The method of claim 6 wherein said controller is a RAID controller.

8. A system for communicating to a component of a system controlled by a
controller comprising:

a first computer system adapted to packaging a communication sequence
into a script by a method comprising:

providing said communication sequence that is a specific set of
actions and action data;

- 10 for each of said actions, creating an action header comprising
 an action code and zero or more component specific commands,
 and creating an action payload comprising zero or more of said
 action data; and
- a controller adapted to communicate with said component of said system
by a method comprising:
- providing said script to said controller; and
- 15 for each of said action headers, executing a command
 corresponding to said action code, transmitting said zero or more
 component specific commands to said component, and transmitting
 said zero or more of said action data from said action payload to
 said component.
9. The system of claim 8 wherein said packaging of said communication is
performed by a first computer system that is separate from said system controlled
by said controller.
10. The system of claim 8 wherein:
- said method of packing said communication sequence further comprises:
 creating a header for said script, said header comprising a
 CRC; and
- 5 said method of communicating to said component further comprises:
 reading said header of said script;
 computing a computed CRC of said script;
 comparing said computed CRC to said CRC contained within
 said header of said script.
11. The system of claim 8 wherein:
- said method of packing said communication sequence further comprises:
 creating a header for said script, said header comprising an
 identifier describing the specific component for which said script is
5 intended; and
- said method of communicating to said component of said system by
running said script by said controller further comprises:

determining a descriptor of said component;

comparing said descriptor of said component to said identifier

10 contained within said header of said script.

12. The system of claim 8 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising a

compatibility list comprising one or more applicable revisions of

5 firmware on said specific component for which said script is

applicable; and

said method of communicating to said component of said system by

running said script by said controller further comprises:

determining a current firmware revision of said component;

10 comparing said current firmware revision to said compatibility

list contained within said header of said script.

13. The system of claim 8 wherein said component is a hard disk drive.

14. The system of claim 13 wherein said controller is a RAID controller.

15. A system for communicating to a component of a system controlled by a
controller comprising:

a first means for packaging a communication sequence into a script by a
method comprising:

5 providing said communication sequence that is a specific set of
actions and action data;

for each of said actions, creating an action header comprising
an action code and zero or more component specific commands,

and creating an action payload comprising zero or more of said
10 action data;

a second means for communicating with said component of said system
by a method comprising:

providing said script to said controller; and

for each of said action headers, executing a command

15 corresponding to said action code, transmitting said zero or more

component specific commands to said component, and transmitting said zero or more of said action data from said action payload to said component.

16. The system of claim 15 wherein said packaging of said communication is performed by a first computer system that is separate from said system controlled by said controller.

17. The system of claim 15 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising a CRC; and

5 said method of communicating to said component further comprises:

reading said header of said script;

computing a computed CRC of said script;

comparing said computed CRC to said CRC contained within said header of said script.

18. The system of claim 15 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising an identifier describing the specific component for which said script is intended; and

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said method of communicating to said component of said system by running said script by said controller further comprises:

determining a descriptor of said component;

comparing said descriptor of said component to said identifier

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contained within said header of said script.

19. The system of claim 15 wherein:

said method of packing said communication sequence further comprises:

creating a header for said script, said header comprising a compatibility list comprising one or more applicable revisions of firmware on said specific component for which said script is applicable; and

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said method of communicating to said component of said system by
running said script by said controller further comprises:

determining a current firmware revision of said component;

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comparing said current firmware revision to said compatibility

list contained within said header of said script.

20. The system of claim 15 wherein said component is a hard disk drive.

21. The system of claim 20 wherein said controller is a RAID controller.